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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,277	02/22/2005	Gavin Paul Vinson	133088.00301(P33791US)	6075
35151	7590	05/21/2010	EXAMINER	
Pepper Hamilton LLP 400 Berwyn Park 899 Cassatt Road Berwyn, PA 19312-1183			YAO, LEI	
			ART UNIT	PAPER NUMBER
			1642	
			MAIL DATE	DELIVERY MODE
			05/21/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/525,277

**Applicant(s)**

VINSON ET AL.

**Examiner**

LEI YAO

**Art Unit**

1642

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 2/19/2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12, 14, 18-21 and 25-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 and 28 is/are allowed.
- 6) ☒ Claim(s) 14, 18, 20, 21, 25, 27 and 29-32 is/are rejected.
- 7) ☒ Claim(s) 19 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**The art unit and examiner of your application in the USPTO have been changed. To aid in correlation any paper for this application, all further correspondence regarding this application should be directed to Art Unit 1642, Examiner Lei Yao.**

## **DETAILED ACTION**

### ***Response to Amendment and Arguments***

The Amendment filed on 2/19/2010 in response to the previous Non-Final Office Action (11/25/2009) is acknowledged and has been entered.

Claims 12, 14, 18-21, and 25-32 are pending and are under consideration for a composition comprising a peptide of SEQ ID NO: 1 or SEQ ID NO: 2 and a method of treating a disease comprising administering antibody to SEQ ID NO: 1.

**The following office action contains NEW GROUNDS of rejection based on reconsideration:**

### **Rejection Withdrawn:**

The rejection of claims 12 and 28 under 35 USC 103(a) as being unattainable over Fujisawa or Vinson et al and Humphries et al is withdrawn in view of the amendment to the claims reciting a peptide consisting of the SEQ ID NO: 1. The arguments provided on page 5-6 of the remarks are moot.

### **The following are New Ground of rejections**

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1642

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 29-30 are rejected under 35 U.S.C. 102b) as being anticipated by Vinson et al (US Patent 6063620, issued 2000) as evidenced by the sequence search result-Vinson.

Claims are drawn to a composition comprising a peptide comprising up to 45 amino acids and comprising the sequence of SEQ ID NO: 2 (EDGIKRIQDD), wherein the peptide is conjugated to a carrier protein.

Vinson et al disclose a ten amino acid peptide (sequence no. 1, page 7) that is identical to the instant SEQ ID NO: 2 as evidenced by the sequence search result as the following (also see attached sequence search result-Vinson and SCORE for details):

US-08-624-374-1  
Patent No. 6063620

```
Query Match          100.0%;   Score 52;   DB 2;   Length 10;
Best Local Similarity 100.0%;   Pred. No. 0.0034;
Matches   10;   Conservative   0;   Mismatches 0;   Indels   0;   Gaps   0;

Qy          1 EDGIKRIQDD 10
             |||||
Db          1 EDGIKRIQDD 10
```

Vinson et al disclose that the peptide is conjugated to BSA to immunize mice. Thus the peptide would be in a composition and meet the limitations of claims.

2. Claims 14, 18, 20-21, 25, 27, 29-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Burmer et al (WO200261087, published Aug 8, 2002) as evidenced by the sequence search result-Burmer.

Claims 29-30 are drawn to a composition comprising a peptide comprising up to 45 amino acids and comprising the sequence of SEQ ID NO: 2 (EDGIKRIQDD), wherein the peptide is conjugated to a carrier protein.

Claims 14, 18, 20-21, 25, 27, 31-32 are drawn to a method of treating a disease comprising breast and prostate cancer or vascular smooth muscle cell proliferation comprising atherosclerosis comprising administering antibody or fragment thereof to a peptide comprising the peptide of SEQ ID NO: 1.

Burmer et al disclose an antigenic protein and peptide from a G protein-coupled receptor, which are a full length 359 amino acid protein (sequence no. 328) and its fragment having 16 amino acids (sequence no. 1441). The 359 amino acid protein comprises the instant claimed SEQ ID NO: 1 as evidence by the sequence search result-Burmer (page 1-2) and the fragment comprises the instant sequence of SEQ ID NO: 2 as evidenced by the same search result (page 3-4).

Burmer et al disclose that the peptide is conjugated to a carrier including BSA or KLH to immunize an animal (page 17, line 20+). The 16 amino acid peptide and its conjugate would be in a composition when it is used for immunization of an animal and meet the limitations of claims 29-30.

Burmer et al further disclose antibodies comprising humanized antibodies, antibody fragments that are F(ab'), Fab and Fv etc to the protein or peptide (page 17) and a method of treating a cancer comprising breast or prostate cancer and treating a disease condition associated with vascular smooth muscle cell proliferation including atherosclerosis by administering the antibody or the fragment thereof (page 56-58).

The method of using antibody or the fragment thereof to the 359 amino acid protein that comprise the SEQ ID NO: 1 for treating the disease would meet the limitations of claims 14, 18, 20-21, 25, 27, and 31-32.

### ***Claim Objection***

Claims 19 and 26 are objected to as being dependent upon rejected base claims 14 and 21 respectively, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Claims 12 and 28 are allowed. Claims 19 and 26 are objected. Claims 14, 18, 20-21, 25, 27, 29-32 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lei Yao, whose telephone number is 571-272-3112. The examiner can normally be reached on 8am-6.00pm Monday-Thursday.

Any inquiry of a general nature, matching or file papers or relating to the status of this application or proceeding should be directed to Kim Downing for Art Unit 1642 whose telephone number is 571-272-0521

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms can be reached on 571-272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lei Yao/  
Examiner, Art Unit 1642

/Larry R. Helms/  
Supervisory Patent Examiner, Art Unit 1643

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Art Unit: 1642

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